THE VESICATING PROPERTIES OF A STAPHYLINID, PAEDERUS NR. INTERMEDIUS BOH., IN THE PHILIPPINES

By Donald De Leon[1]

One evening in November, the writer, who was then working at the Abaca Experiment Station in Guinobatan, Albay, in the Philippines, was reading by the light of a Primus lantern. There had been a rainy spell, and insects were unusually numerous about the light. As he read, he brushed them off his arms and face.

Two mornings later his upper eyelids were irritated, red, and slightly swollen. They continued to swell until both eyes were all but closed. Many small blisters formed on the left eyelid. These blisters seemed not the usual blisters, filled with clear liquid, but looked as if they had become infected. The eyes were bathed with boric acid solution, but the treatment had no apparent effect. In a few days the swelling receded and the blisters dried, leaving a hard scab. Eight days after the irritation was first noticed, the eyes were practically back to normal.

At the time, the author suspected that the irritation was caused by an insect. After reading a paper by Theodorides[2] concerning the vesicating properties of the genus *Paederus*, he considered it likely that a staphylinid might have been the cause.

It was not until after the December typhoon that there was again such a flight of insects. Among them were two species of *Paederus*. One of each was caught, and each was rubbed lightly, not crushed, on a different area on the inside of the forearm.

Two mornings later the area on which *P.* nr. *intermedius* had been rubbed became red. The morning after the reddening had been observed, blisters were present on the arm. By the fifth day after exposure, a blister about ½ inch by 1 inch had developed. The skin around the blister was itchy. The blister dried up quickly, and by the eighth day a loose scab had developed and the spot gave no further trouble. *P. sondaicus*, the other species tested, gave no reaction.

Four more *P.* nr. *intermedius* were similarly tested at later dates. All four caused blisters. A third species, *P. fuscipes* Curt., tested in the same way, gave no reaction.

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[2]Theodorides, J. Experiments on the vesicating properties of species of *Paederus* (Staphylinidae) in France. Col. Bull., vol. 4, pp. 21-22, 1950.

Later there was such a large flight of *P.* nr. *intermedius* that about 60 were caught. Half of them were placed in a milliliter of about 90% ethyl alcohol; the other half, in the same amount of linseed oil. Two days afterward a drop of liquid from each vial was placed on the forearm. The alcohol caused no blister; the linseed oil caused a large blister.

All three species of *Paederus* have been mounted, in the same manner, and kept in the same box. The two species that did not cause blisters have molded heavily; the other species shows no trace of mold.

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AN ABNORMAL MATING RESPONSE AMONG LAMPYRIDS

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Ordinarily the quite specific flash-and-response mating signal system of the Lampyridae would seem to prevent any extensive cross-breeding. However, they occasionally make mistakes. One of the most peculiar of these was observed near Newark, Del., on June 8, 1951. What was at first assumed to be a female of *Photuris hebes* responding to the flashes of two males of that species, abundant in the adjoining field, in foot-high grass along the roadside, proved to be a very gravid female of *Photinus scintillans.* No males of *scintillans* were seen at the time, which was well in advance of the usual prevalence of this species, but both sexes were abundant in the same locality a month later. It is peculiar that the males of *hebes,* which give a rather greenish flash, should be attracted by the distinctly orange-colored flash of *scintillans.*

A single large male of *P. scintillans* was collected in early May in Wilmington some years ago, and identified by H. S. Barber.